

Claims

1. A method for executing processing tasks in a distributed processing framework system, the method comprising:

- 5 identifying a main task of a tasklist;
- identifying a subtask of the main task;
- allocating computing resources for each of the main task and the subtask;
- deploying the main task to a first computing system that is part of the distributed processing framework system, a code of the main task being executed on
- 10 the first computing system, the code of the main task having program instructions for, requesting loading of code for the subtask to a second computing system that is part of the allocated computing resources, the code for the subtask being in client-server communication with the code for the main task, such that the code for the main task receives processing results directly from the code for the subtask.

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2. A method for executing processing tasks in a distributed processing framework system as recited in claim 1, wherein the processing results received from the subtask are implemented to create a main task processing results to be communicated to a system controller.

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3. A method for executing processing tasks in a distributed processing framework system as recited in claim 2, wherein the system controller releases the allocated computing resources upon receiving the main task processing results from the main task.

4. A method for executing processing tasks in a distributed processing framework system as recited in claim 1, further including,

a plurality of subtasks in addition to the subtask, the plurality of subtasks configured to be controlled by the main task.

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5. A method for distributing an execution of a plurality of tasks within a tasklist by a system controller, the plurality of tasks configured to be processed by a plurality of processing resources in a distributed processing framework (DPF) system, the method comprising:

10 loading the tasklist, the tasklist having a main task and a subtask;
allocating a processing resource to execute each task within the tasklist;
deploying the main task for execution;
deploying the subtask to the processing resource upon receiving a special request for the subtask from the main task; and
15 enabling communication between the main task and the subtask, the communication configured to provide the main task with a result of a subtask execution.

6. The method of claim 5, further including,

20 communicating a result of a main task execution to the system controller, wherein the system controller releases the plurality of processing resources upon receiving the result of main task execution.

7. The method of claim 5, wherein allocating the processing resource to execute each task within the tasklist includes,

loading the tasklist by the system controller;

searching a registry service for the processing resource having a plurality of attributes substantially identical to a plurality of attributes of each task within the tasklist; and

allocating each of the processing resources having attributes substantially identical to the plurality of each of the tasks to the execution of the task having the substantially identical attributes.

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8. The method of claim 7, wherein deploying the subtask to the processing resource upon receiving a special request for the subtask from the main task includes,

dispatching a special request to the system controller, the special request configured to include the plurality of attributes of the subtask;

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searching a plurality of processing resources allocated, the searching configured to locate the subtask having the plurality of attributes included in the special request; and

deploying the located subtask to the processing resource having a plurality of attributes substantially identical to the plurality of attributes of the subtask.

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9. The method of claim 8, wherein the registry service is a look up service.

10. The method of claim 5, wherein the DPF is a distributed test framework (DTF) system.

11. The method of claim 5, wherein the main task is operated on a processing resource server.

5 12. The method of claim 5, wherein the subtask is operated on a processing resource client.

13. The method of claim 5, wherein the main task is a test harness.

10 14. A method for distributing an execution of a plurality of tasks by a system controller, the plurality of tasks configured to be processed by a plurality of processing resources in a distributed processing framework (DPF) system, the method comprising:

loading a plurality of tasks to be executed;

15 allocating a processing resource to execute each of the plurality of tasks;

deploying each task to a respective processing resource substantially at the same time;

receiving a result task from each processing resource upon a conclusion of each task; and

20 releasing the plurality of processing resources upon receiving a result of an execution from each of the plurality of processing resources.

15. The method of claim 14, wherein allocating a processing resource to execute each of the plurality of tasks includes,

searching a registry service for the processing resource having a plurality of attributes substantially identical to a plurality of attributes of each task; and

allocating each of the processing resources having attributes substantially identical to the plurality of each of the tasks to the execution of the task having the substantially identical attributes.

16. The method of claim 14, wherein the DPF system is a distributed test framework system.

10 17. The method of claim 16, wherein the processing resource is a test system.

18. A method for distributing an execution of a plurality of tasks by a system controller, the plurality of tasks configured to be processed by a plurality of 15 processing resources in a distributed processing framework (DPF) system, the method comprising:

loading a plurality of tasks to be executed;

allocating a processing resource to execute each of the plurality of tasks;

deploying a first task of the plurality of tasks to a first processing resource of

20 the plurality of processing resources;

deploying a second task of the plurality of tasks to a second processing resource of the plurality of processing resources upon receiving a result of an execution of the first task;

releasing the plurality of processing resources upon receiving a result of an execution for each of the plurality of tasks.

19. The method of claim 18, further including,

5 caching the result of the execution for each of the plurality of tasks.

20. The method of claim 18, wherein allocating a processing resource to execute each of the plurality of tasks includes,

searching a registry service for the processing resource having a plurality of

10 attributes substantially identical to a plurality of attributes of each task; and

allocating each of the processing resources having attributes substantially identical to the plurality of each of the tasks for the execution of the task having the substantially identical attributes.

15 21. The method of claim 18, wherein the registry service is a look up service.

22. The method of claim 18, wherein the DPF is a distributed test framework (DTF) system.

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